Title: METHOD AND DEVICE FOR DETERMINING AN EXPECTANCY RANGE FOR A FILLING LEVEL ECHO AND A FALSE ECHO

## **REMARKS**

Claims 1, 7-9, 15-18, 21-28, and 29 are amended, claims 6, 19-20 and 29 are canceled; as a result, claims 1-5, 7-18, 21-28 and 30 are now pending in this application.

## §102 Rejection of the Claims

Claims 15-17, 19-22 and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kumar (U.S. Patent No. 6,046,960). Claims 1-14, 18, 23-25 and 27-30 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as obvious over Kumar. Kumar (U.S. Patent No. 6,046,960). Applicant respectfully traverses these rejections.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. In re Dillon 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131.

Further, "For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art . . . Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there." Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 1473 (Fed. Cir. 1997).

Claim 15 recites, in part, "means for identifying at least one filling level echo or false echo from a first filling level envelope curve, the first filling level envelope curve having been generated at a first time; means for identifying at least one second filling level echo or false echo from a second filling level envelope curve, the second filling level envelope curve having been generated at a second time different from the first time; means for determining at least one expectancy range for a filling level echo or false echo in consideration of the temporal behavior of the identified at least one first filling level echo or false echo and of the identified at least second filling level echo or false echo; means for sampling a filling level envelope curve currently received by the filling level measurement device by an analog-to-digital converter; means for storing the echoes of the sampled filling level envelope curve including their echo data in an array of a predeterminable size; means for processing the echo data stored in the array with image processing methods; means for searching individual echoes in the current filling level envelope curve; means for assigning the detected echoes to expectancy ranges determined in the past for a filling level echo or a false echo; means for determining the filling level using said echo in the case that an echo is assigned to the expectancy range for the filling level; and means for determining a new expectancy range for echoes to be expected in the future when the array is occupied by echo data." Applicant can not find these features in Kumar.

Claims 16-17, 21-22 and 26 depend from claim 15 and are allowable therewith even though these claims recite further patenable features over Kumar. Allowance of claims 16-17, 21-22 and 26 is requested.

The Office Action with reference to claims 1-14 admits that "a method for determining at least one expectancy for a filing level echo or a false echo is not explicitly disclosed in the Kumar reference."

Further, claim 1 recites features not found in Kumar. For example, claim 1 recites, in part, "sampling a filling level envelope curve currently received by the filling level measurement device by an analog-to-digital converter; storing the echoes of the sampled filling level envelope curve including their echo data in an array of a predeterminable size; processing the echo data stored in the array with image processing methods; searching individual echoes in the current filling level envelope curve; assigning the detected echoes to expectancy ranges determined in the past for a filling level echo or a false echo; in the case that an echo is assigned to the expectancy range for the filling level, determining the filling level using said echo; and when the array is occupied by echo data, determining a new expectancy range for echoes to be expected in

the future." Applicant can not find these features in Kumar. As such, claim 1 is not anticipated or obvious in view of Kumar.

Claim 28 recites, in part, "the computer program including instructions for performing the following operation: identifying at least one filling level echo or false echo from a first filling level envelope curve, the first filling level envelope curve having been generated at a first time; identifying at least one second filling level echo or false echo from a second filling level envelope curve, the second filling level envelope curve having been generated at a second time different from the first time; determining at least one expectancy range for a filling level echo or false echo in consideration of the temporal behavior of the identified at least one first filling level echo or false echo and of the identified at least second filling level echo or false echo; sampling a filling level envelope curve currently received by the filling level measurement device by an analog-to-digital converter; storing the echoes of the sampled filling level envelope curve including their echo data in an array of a predeterminable size; processing the echo data stored in the array with image processing methods; searching individual echoes in the current filling level envelope curve; assigning the detected echoes to expectancy ranges determined in the past for a filling level echo or a false echo; in the case that an echo is assigned to the expectancy range for the filling level, determining the filling level using said echo; and when the array is occupied by echo data, determining a new expectancy range for echoes to be expected in the future." Applicant can not find these features in Kumar. As such, claim 28 is not anticipated or obvious in view of Kumar.

Claims 30 recites, in part, "identifying at least one filling level echo or false echo from a first filling level envelope curve, the first filling level envelope curve having been generated at a first time; identifying at least one second filling level echo or false echo from a second filling level envelope curve, the second filling level envelope curve having been generated at a second time different from the first time; determining at least one expectancy range for a filling level echo or false echo in consideration of the temporal behavior of the identified at least one first filling level echo or false echo and of the identified at least second filling level echo or false echo." Applicant can not find these features in Kumar. As such, claim 30 is not anticipated or obvious in view of Kumar.

Title: METHOD AND DEVICE FOR DETERMINING AN EXPECTANCY RANGE FOR A FILLING LEVEL ECHO AND A FALSE ECHO

Addressing now the obviousness rejection of claims 1-14, 18, 23-25 and 27-30, the Applicant respectfully traverse this rejection since a *prima facie* case of obviousness has not been established.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). In combining prior art references to construct a *prima facie* case, the Examiner must show some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art that would lead an individual to combine the relevant teaching of the references. *Id*. The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

The fact that the references can be combined or modified does not render the resultant combination obvious *unless* the prior art *also* suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. That is, unless all three of the conditions described in M.P.E.P. § 2142 are met, a *prima facie* case of obviousness is not established, and rejection under 35 U.S.C.§103 is improper.

All of the features in the claims are not taught or suggested by Kumar. Accordingly, a prima facie case of obviousness has not been made.

Applicant can not find in the record a suggestion or motivation to modify Kumar. Applicant can not find in the record an indication of a reasonable expectation of success in modifying Kumar. In the recent decision In Re Kahn, the Federal Circuit explained that motivation to combine entails consideration of both the "scope and content of the prior art" and "level of ordinary skill" aspects of the Graham test, "the motivation-suggestion-teaching test picks up where the analogous art test leaves off and informs the Graham analysis," and in considering motivation, "the problem examined is not the specific problem solved by the

Filing Date: July 18, 2003

Title: METHOD AND DEVICE FOR DETERMINING AN EXPECTANCY RANGE FOR A FILLING LEVEL ECHO AND A FALSE ECHO

invention but the general problem that confronted the inventor before the invention was made." Applicant can not find where the Office Action meets these requirements. As such a *prima facie* case of obviousness has not been made.

The Office Action relies on a single reference, Kumar, to reject the claims. Applicant respectfully traverses the single reference rejection under 35 U.S.C. § 103 since not all of the recited elements of the claims are found Kumar. Since all the elements of the claim(s) are not found in Kumar, Applicant assumes that the Examiner is taking official notice of the missing elements. Applicant respectfully objects to the taking of official notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicant respectfully traverses the assertion of Official Notice and requests that the Examiner cite references in support of this position.

Moreover, the Office Action admits that "a method for determining at least one expectancy for a filing level echo or a false echo is not explicitly disclosed in the Kumar reference." As Kumar does not explicitly disclose the features of claims 1-14, 18, 23-25 and 27-30, applicant request withdrawal of these rejections and allowance of the claims.

Serial Number: 10/622,838 Filing Date: July 18, 2003

Title: METHOD AND DEVICE FOR DETERMINING AN EXPECTANCY RANGE FOR A FILLING LEVEL ECHO AND A FALSE ECHO

## **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and next action to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 27 March '06

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<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: <u>Mail Stop Amendment</u>, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27th day of <u>March</u>, 2006.

PATRICIA A. HULTMAN

Name

Signature